

WHAT IS CLAIMED IS:

1. A system for communicating with a deployed product, comprising:
an electronic controller operatively associated with the deployed product;
a dual-architecture card mounted in the electronic controller, the dual-architecture card including a closed architecture section and an open architecture section, the open architecture section including a microserver, the microserver generating a wireless system around the deployed product; and
a computing device remote from the deployed product, the computing device adapted to wirelessly communicate with the microserver.
2. The system of claim 1, wherein the microserver hosts a web page and the computing device accesses the web page through the Internet, the web page having an IP address available for a plurality of Internet protocols.
3. The system of claim 2, wherein the microserver and computing device communicate wirelessly by way of a local area network.
4. The system of claim 2, wherein the microserver and computing device communicate wirelessly by way of a cellular network.
5. The system of claim 2, wherein the microserver and computing device communicate wirelessly by way of satellite.
6. The system of claim 1, wherein the deployed product is an aircraft engine.
7. The system of claim 1, wherein the deployed product is an aircraft.
8. The system of claim 1, wherein the closed architecture section includes a smart signal conditioner.

9. The system of claim 1, wherein the closed architecture section includes a microserver.
10. The system of claim 1, wherein the closed architecture section includes a security connection between the closed architecture section and the open architecture section.
11. The system of claim 1, wherein the computing device is selected from the group of computing devices consisting of desktop computers, laptop computers, personal digital assistants, cellular telephones, and wireless PC tablets.
12. The system of claim 1, wherein the closed side executes proprietary, protected software.
13. The system of claim 1, wherein the open side executes unprotected software.
14. The system of claim 1, wherein the dual-architecture card performs as a client to the Internet.
15. The system of claim 1, wherein the dual-architecture card performs as a server to the computing device remote from the deployed product.
16. The system of claim 1, wherein the dual-architecture card generates a local wireless intranet in and around the deployed product capable to operating in conjunction with the Internet the local wireless intranet also being capable of operating independently of the Internet.
17. The system of claim 1, wherein the dual-architecture card acts as a coordinating server in communication with other computing devices, servers, and systems onboard the deployed product.

18. The system of claim 1, wherein the dual-architecture card hosts software tools for data analysis.
19. The system of claim 18, wherein the software tools for data analysis are accessible from the computing device remote from the deployed product.
20. The system of claim 1, wherein the dual-architecture card hosts technical publications about the deployed product.
21. The system of claim 20, wherein the technical publications are accessible from the computing device remote from the deployed product.

22. A gas turbine engine comprising:
- a compressor section;
 - a combustion section downstream of the compressor section;
 - a turbine section downstream of the combustion section;
 - a casing surrounding at least one of the compressor section, combustion section, and turbine section;
 - an electronic controller mounted to the casing, the electronic controller controlling and monitoring operation of the engine; and
 - a dual-architecture card mounted in the electronic control box, the dual-architecture card including an open architecture section and a closed architecture section, the open architecture section including a microserver.
23. The gas turbine engine of claim 22, wherein the microserver hosts a web page, the web page having an IP address available for a plurality of Internet protocols.
24. The gas turbine engine of claim 22, wherein the microserver generates a wireless system surrounding the engine and adapted to connect to the Internet.
25. The gas turbine engine of claim 22, wherein the closed architecture section of the dual-architecture card runs proprietary, engine-specific, algorithms inaccessible by the open architecture section.
26. The gas turbine engine of claim 25, further including a closed-loop control between the closed architecture section and other cards within the engine control box, the closed architecture section receiving raw engine data from the other cards of the engine control box, executing the engine-specific algorithms based on the raw engine data, and transmitting control signals to the other cards of the electronic control box to modify operation of the gas turbine engine.

27. The gas turbine engine of claim 22, wherein the closed architecture section includes a microserver.
28. The gas turbine engine of claim 22, wherein the dual architecture section includes a smart signal conditioner.
29. The gas turbine engine of claim 22, wherein the dual-architecture card further includes a high-security connector between the open architecture section and closed architecture section.
30. The gas turbine engine of claim 22, wherein the microserver connects to the Internet by way of a local area network.
31. The gas turbine engine of claim 22, wherein the microserver connects to the Internet by way of a cellular network.
32. The gas turbine engine of claim 22, wherein the microserver connects to the Internet by way of satellite.

33. A dual-architecture card for use in a deployed product, comprising:
- a closed architecture section;
 - an open architecture section, the open architecture section including a microserver, the microserver generating a wireless system adapted to connect to the Internet; and
 - a security connection between the closed architecture section and the open architecture section, the security connection ensuring proprietary software and data in the closed architecture section is not communicated to the open architecture section.
34. The dual-architecture card of claim 33, wherein the closed architecture section includes a smart signal conditioner.
35. The dual-architecture card of claim 34, wherein the deployed product is an aircraft engine.

36. A method of communicating with a deployed product, comprising:
installing a dual-architecture card into an electronic controller of a deployed product,
the dual-architecture card including a closed architecture section and an open architecture
section;
executing proprietary software on the closed architecture section based on data
received from the deployed product;
transferred processed data from the closed architecture section to the open
architecture section for access from the Internet or local computing devices; and
wirelessly transmitting the processed data from the open architecture section to a
remote computing device.

37. The method of claim 36, further including the step of providing a microserver
on the open architecture section.

38. The method of claim 37, further including the step of hosting a web page on
the microserver, the web page having an IP address available for a plurality of Internet
protocols.

39. The method of claim 38, wherein the web page is accessible through the
Internet and a local area network.

40. The method of claim 38, wherein the web page is accessible through the
Internet and a cellular network.

41. The method of claim 38, wherein the web page is accessible through the
Internet and a satellite.

42. The method of claim 36, wherein the transferring step is performed through a security connection ensuring the proprietary software is not accessible by the open architecture section and the Internet.

43. The method of claim 36, wherein the deployed product is an aircraft engine.

44. The method of claim 36, wherein the remote computing device is selected from the group of remote computing devices including desktop computers, personal digital assistants, wireless PC tablets, cellular phones and laptop computers.

45. An electronic controller for an engine, comprising:
a closed architecture section for controlling and monitoring the engine;
an open architecture section including a microserver for generating a wireless system adapted to connect to the Internet; and
a security connection between the closed architecture section and the open architecture section.

46. The electronic controller of claim 45, wherein the engine is a gas turbine engine.